
MSS™

Modular Stock System



Magpul Industries Corp

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Introduction to the Modular Stock System

The Modular Stock System (MSS) is a complete stock solution developed by Magpul Industries Corp, of Boulder Colorado U.S.A. It is designed to replace the buffer tube and stock assembly of the M16 Rifle and M-4 Carbine but can also be adapted to other types of weapon systems.

The patent pending MSS features a receiver extension tube, which acts as a modular base for a selection of fixed and collapsible stocks. An individual soldier without the expertise of an armorer can accomplish changing the stock configuration. The MSS buffer unit also provides a single common sling mount point for all stocks.

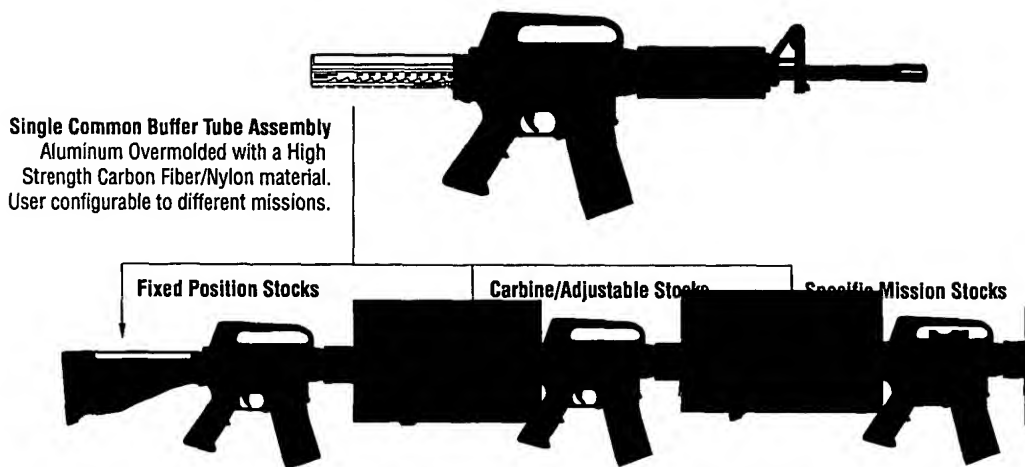


By unifying the buffer tube assembly, the user can tailor the stock to the particular mission involved. In addition to providing flexibility with different types of fixed length stocks, the MSS also has a vastly improved collapsible carbine stock.

MSS Common Buffer Tube Assembly

The heart of the MSS is a common buffer tube assembly that allows the use of different stock types, configurable to different missions.

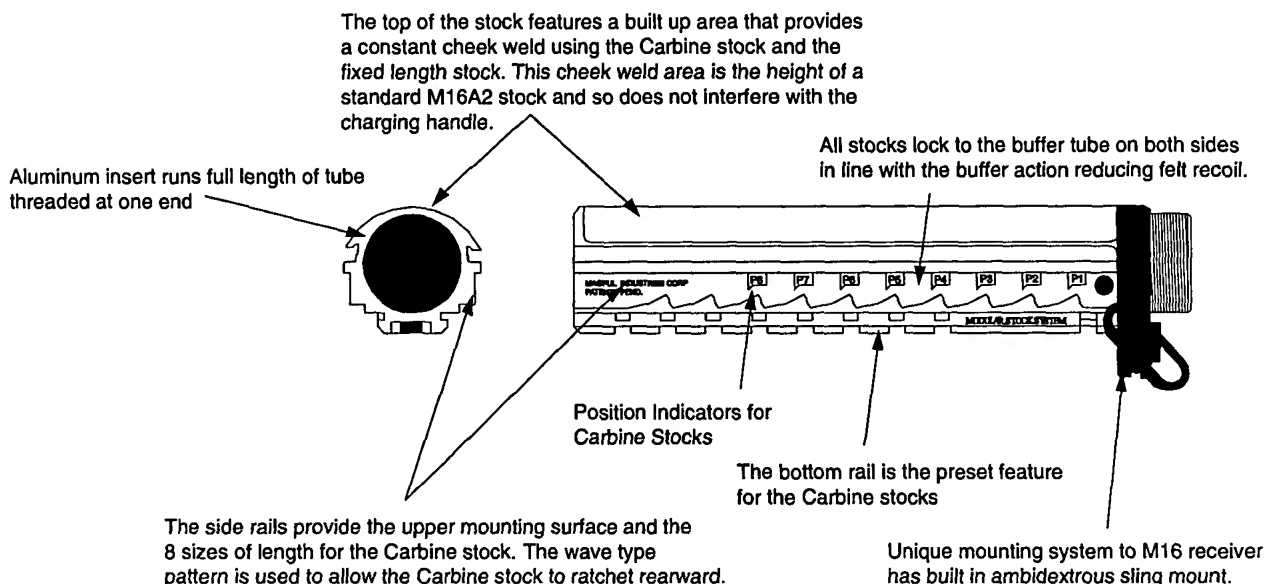
These are examples of the three main types of stocks the MSS can accommodate:



MSS Common Buffer Tube Assembly - Detail

Unlike the current metal buffer tube, the MSS tube will be molded out of a high strength carbon/nylon material over a full length aluminum tube which contains the threads. It will be the same length as the current carbine buffer tube and will be able to use any buffer/ spring combination designed for this system.

The common buffer tube assembly has features molded into it allow it to serve its multiple functions.



Examples of Cheek Welds (Conventional vs MSS)

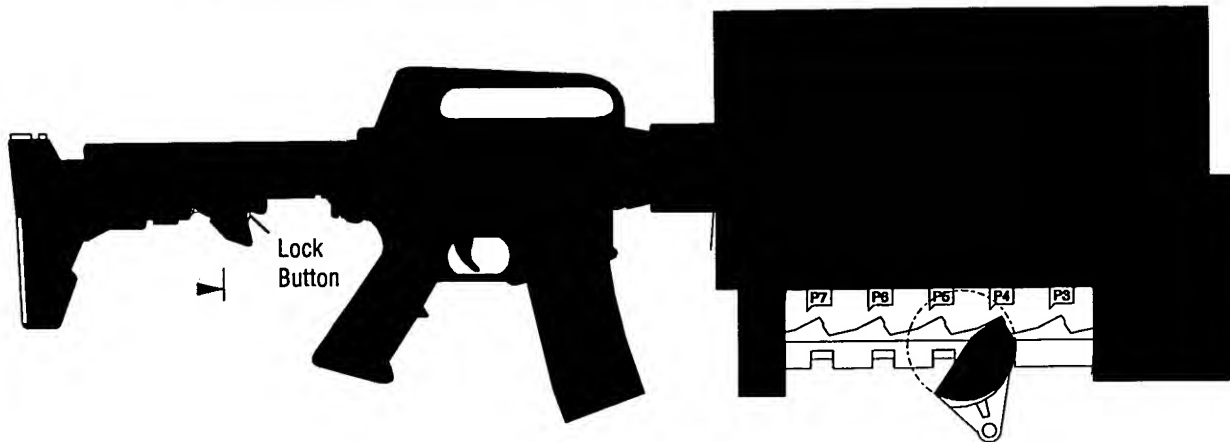


Notice the Cheek Weld is half on, half off the stock. Not only is this very different than the standard stock, Cheek weld also changes dramatically depending on what position the collapsible stock is locked in.

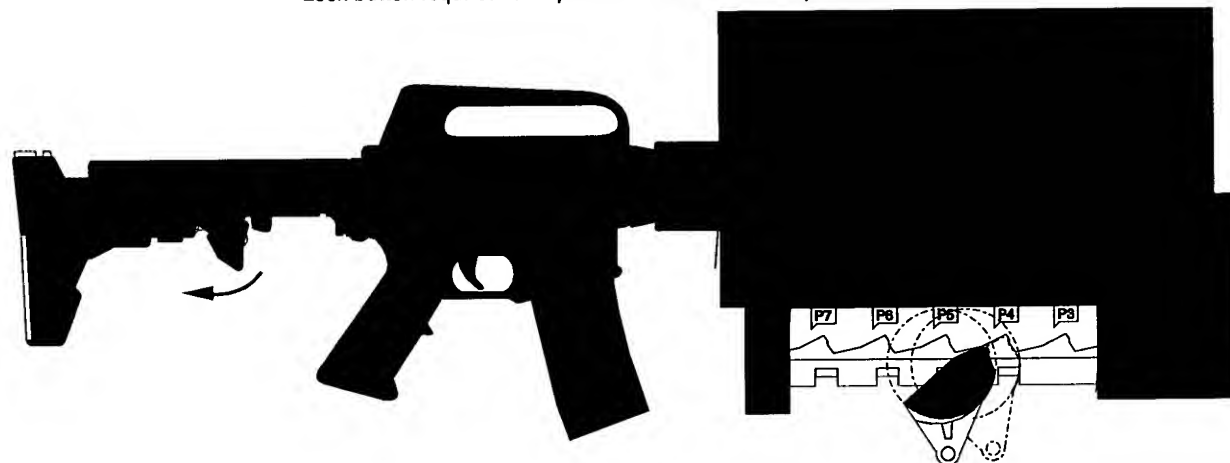


Here the cheek rests in a straight line at the same height as the standard fixed stock. It also remains constant throughout the 8 preset sizes of the collapsible stock

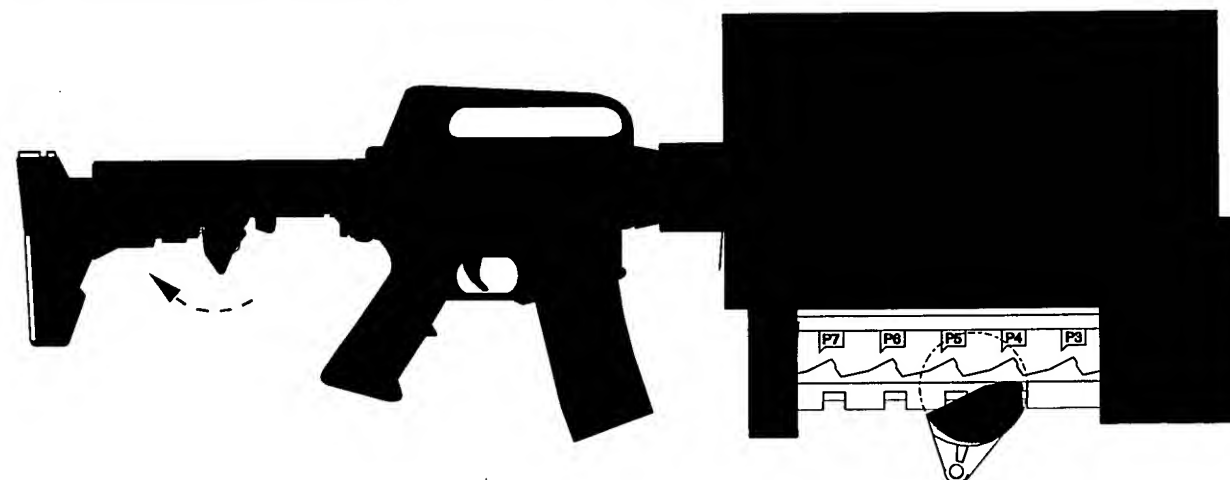
MSS Collapsible Stock- Simple Lock and Release Feature



Leaver Full Forward - Stock is friction locked to buffer tube. No movement back or forth.
Lock button required to be pushed to move from this position



Leaver In Unlocked Position - Stock is engaged to the buffer tube but will ratchet rearward when pulled
Note: Even in the unlocked state the stock will NOT travel forward, thus ensuring the capability for using the weapon in the unlocked state.



Leaver Pulled and Held Rearward- Stock can slide freely up and down the buffer tube as long as pressure is applied to the lever

M93 Carbine Stock - Lengths of Pull



Length of Pull
as calculated horizontally from
center of trigger to base plate.

-12.98 inches

-13.88 inches

-14.80 inches

-15.21 inches

-16.69 inches

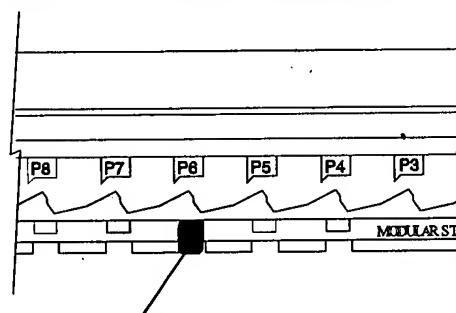
-17.18 inches

-18.63 inches

-19.04 inches

Preset Capability

The MSS buffer uses clips to restrict rearward movement of the stock to any preset location.



Preset Clip

NOTE: If needed the user can "Jump" over the preset by depressing a small button on the M93 Stock

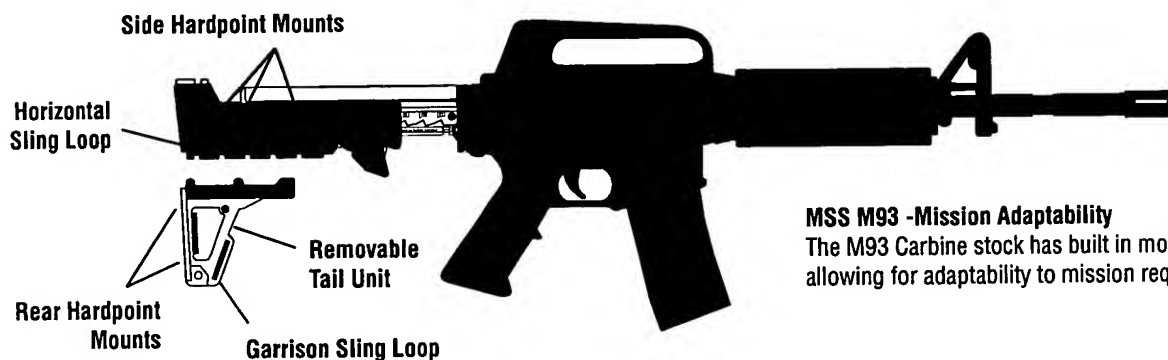
M16A2 -13.50 inches

M4 Closed -9.84 inches

M4 Open -13.18 inches

M93 Carbine Stock Configurations

MSS M93 MODULAR COMPONENTS



MSS M93 -Mission Adaptability
The M93 Carbine stock has built in modular capability allowing for adaptability to mission requirements.

EXAMPLES OF CUSTOM M93 TAIL UNITS



MSS Battery Pack Unit
Power supply for night vision, range finders etc
(could also be charged by solar or hand crank)



MSS Survival/Aircraft Unit
Small profile stock with watertight storage.



MSS Grenadier Unit
Used to store 3x40mm Grenades used in the M203

Fixed Stock Configurations

FIXED POSITION STOCKS

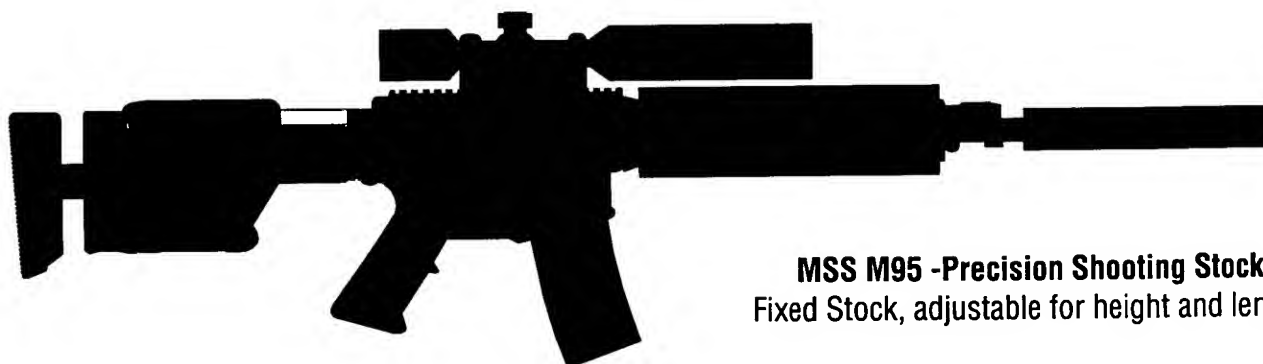


MSS M92 -Full Sized Standard Stock
Identical to M16A2 Dimensions



MSS M92A -Shorty Fixed Stock
For CQB, Helicopter, or for use with Body Armor

SPECIFIC MISSION STOCKS



MSS M95 -Precision Shooting Stock
Fixed Stock, adjustable for height and length

M94 Custom Fixed Stock

This design is a fixed stock that is user configurable to multiple lengths depending on users size, body armor, or mission. Components slide together and are locked in place by two bolts.

MSS M94 -Components



MSS M94 -Configurations



Summary of Features

- An individual operator (without an armorer) can change the stock configuration.
- Weapon stocks can be changed easily for different types of missions.
- Consistent cheek weld from fixed position stocks to collapsible stocks.
- Consistent cheek weld when using the collapsible stock at different lengths.
- M93 Carbine stock offers easy to use lock and release feature.
- When the carbines stock is locked in position it is immobile and friction locked to the buffer tube as a single solid unit.
- M93 Carbine stock offers 8 positions and 7 presets. (LOP adjustable 10 - 14 inches)
- Weight of M93 Carbine stock with buffer unit and mounting hardware approx 15 ounces
- In its unlocked state, the M93 carbine stock can be ratcheted back to the preset or any position forward of the preset. Note: Even in the unlocked state the stock will NOT travel forward, thus ensuring the capability for using the weapon in the unlocked state.
- M93 Carbine Stock offers mounting rails that allow a wide variety of equipment to be configured as part of the stock.
- M94 Configurable Fixed Stock can be modified for different LOPs as Mission requires.
- New innovations such as power supply battery stocks or "Adjustable Marksman Stocks" can be quickly implemented and configured.

Release Dates

M93 Carbine Stock - Currently in preproduction testing - Will be released by end of 2002.

M92 Fixed Stocks - Early Mid 2003

M94 Custom Fixed Stock - Mid-Late 2003

M95 Precision Shooting Stock - Mid-Late 2003

- All production times are approximate.
- Release dates and features are subject to change.
- Patents Applied For. Copyright 2000-2002 All Rights Reserved